Whitmoyer Laboratories Superfund Site

— Jackson Township, Pennsylvania —

EPA Region III **February 1998**

Community Update

EPA PROPOSES CHANGE FOR VAULT SOILS

EPA is proposing to change the cleanup plan for soils found in an on-site vault at the Whitmoyer Laboratories Superfund Site (the site). Originally, EPA decided to treat the vault soils using on-site incineration and stabilization. Now EPA proposes to eliminate on-site incineration and instead take the vault soils off-site for stabilization. If EPA's proposal is adopted, the stabilized soils would be placed in an off-site hazardous waste landfill.

Public Meeting
on EPA's Proposed Change

February 10, 1998
7:30 p.m.
Jackson Township
Municipal Building
Conference Room
60 North Ramona Road
Myerstown, PA
(717) 866-4771

EPA's decision to incinerate and stabilize these soils is outlined in the December 17, 1990 Record of Decision (ROD) for Operable Unit Two (OU-2). A ROD is a legal document that formally states EPA's chosen cleanup plan for a site. Operable units are clusters of site work.

EPA is proposing this change to the ROD because additional information about the vault soils was discovered during the Remedial Design (RD). The RD is an engineering phase that generates additional information used to develop technical drawings and specifications for the cleanup work.

Specific information acquired during the RD included:

- The vault wastes contain four categories of materials:
  1. contaminated soil
  2. aniline still-bottom tars
  3. a mixture of carbon and tar
  4. calcium arsenate sludge

  Limited amounts of various debris (such as empty cardboard drums, empty steel drums and wood) were mixed within each category.

- There are several treatment facilities that can treat and dispose of these vault wastes. In fact, all of the vault wastes except for these soils have been transported to off-site treatment and disposal facilities. (See the Explanation of Significant Differences dated December 28, 1994 and November 7, 1995.) Currently, the vault soils are temporarily stored in an on-site hazardous waste storage building.

- After the vault soils were analyzed, they were tested to see if they could be treated. These bench-tests were followed by full-scale demonstration tests. Results of these studies indicate that off-site chemical stabilization and disposal in a hazardous waste landfill is an appropriate alternative to on-site incineration.

30-Day Public Comment Period

You can let EPA know what you think about the proposal during the 30-day public comment period beginning February 3, 1998 and ending March 4, 1998.

EPA will present its proposal at a public meeting on February 10, 1998. All community members are invited to attend and participate.

EPA's New Proposal

The vault soils primarily contain arsenic and relatively low concentrations of organic compounds. This soil contamination is detailed in the July 29, 1994 Vault Wastes Characterization Results Report. Bench-tests were done in 1995 to examine if stabilization could be used to treat the vault soils. Bench-tests are small-scale laboratory tests of cleanup technologies. The bench-tests examined whether vault soils could be treated to the degree where they could be disposed of on land, such as a permitted hazardous waste landfill. Landfill disposal can be disallowed for wastes that do not meet established treatment standards. These treatment standards are also known as Land Disposal Requirements (LDR).

Although the treatability tests were unable to achieve the LDR standard for leachable arsenic, the formulations tested were able to reduce the leachable arsenic by 90 percent. The LDRs allow for land disposal where the treatment achieves a 90 percent reduction in leachable arsenic.

The full-scale stabilization tests done in November 1996 confirmed that:

- Off-site stabilization can be done at full-scale.
- Adequate reduction in leachable arsenic can be achieved.
- Vault soils will be accepted at one or more off-site disposal facilities in accordance with the facility's permit requirements.

Full-scale tests were conducted at the hazardous waste facilities run by US Ecology (Beatty, Nevada) and Chemical Waste Management (Emelle, Alabama). Both facilities achieved a greater than 90 percent reduction in leachable arsenic, with US Ecology achieving a reduction of 95.8 percent. Each facility coordinated with the appropriate regulatory agency to ensure each knew about the soil contaminants and EPA Region III's proposal to change how vault soils are addressed. Both the Nevada Department of Environmental Protection and EPA Region IV indicated they would support a decision to issue a treatability variance for stabilizing the vault soils.

EVALUATION OF ALTERNATIVES

There are two alternatives:

1. Incinerate soils on-site, then treat incinerated soils before taking them off-site for disposal. This is the course of action outlined in the 1990 ROD.

2. Treat and dispose soils off-site. This is the new proposal.

Both alternatives rely on immobilizing arsenic to protect human health and the environment. Neither alternative destroys arsenic, which is the principal hazardous substance in the soils. Arsenic is an element that cannot be destroyed.

Incinerating soils would destroy the relatively minor organic soil components. However, these organic soil components will have relatively low concentrations after off-site stabilization and disposal in a hazardous waste landfill. These remaining organics are expected to present insignificant risk to human health and the environment.

Stabilization would immobilize arsenic and other soil contaminants. The stabilized soils are put in a lined hazardous waste landfill that has a leachate collection system. As a result, off-site treatment and disposal of vault soils protects human health and the environment.

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Evaluation Of Alternatives (Continued)

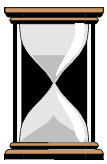
An amendment to the OU-2 Record of Decision by the EPA Region III Regional Administrator will provide the treatability variance required to perform the stabilization of the vault soils. Vault soils would be handled in accordance with all federal, state and local requirements. These requirements cover soil handling and loading, transportation, as well as treatment and disposal.

Long-term Effects

The long-term effectiveness of both alternatives are similar, since both rely on immobilization and containment to minimize potential exposure to arsenic. Incineration would enhance long-term effectiveness and permanence by destroying organics. However, stabilization reduces the mobility of arsenic in these soils.

Incineration would decrease the toxicity of the wastes by physically altering the organics in the soil. However, incineration would not reduce the toxicity or volume of arsenic. Off-site stabilization would virtually eliminate any potential for arsenic to move into the environment because arsenic mobility would be reduced by greater than 90 percent. Also, the treated soils would go into a lined hazardous waste landfill with a leachate collection system.

Time Schedule



It would take approximately six months to complete the soil stabilization. This is significantly less time than would be needed to incinerate soils. On-site incineration would take several years to implement. Off-site incineration was selected twice before in place of EPA's original plans to incinerate on-site. However, off-site incinerators have a limited capacity and it would take about a year before treatment could start. It would likely take several years to complete off-site incineration. Therefore, vault soils would need to be stored long-term either on or off of the site.

Costs

The cost of vault soil stabilization is approximately $685,000. On-site handling costs are not included but would be a constant factor regardless of the treatment used. Off-site incineration costs from $2.4 million to $3.1 million, depending on the facility performing the incineration. On-site incineration would cost significantly more than incineration at an off-site facility.

Proposal Support

The Commonwealth of Pennsylvania did not agree with EPA's choice of on-site incineration of vault soils. The Pennsylvania Department of Environmental Protection (PADEP) supports EPA's proposed change to stabilize soils at an off-site location. PADEP supported EPA's two earlier changes that replaced on-site incineration and stabilization with off-site treatment.

Community concerns have been raised regarding the safety of on-site incineration since EPA proposed the remedy in 1990. Several homes are immediately adjacent to the Site and a grammar school is located approximately one-half mile north of the Site. EPA discussed the strategy to treat the vault wastes at off-site locations during several public meetings following the 1990 ROD. During each discussion, the citizens present strongly supported the selection of off-site treatment facilities and continued to express significant concerns regarding on-site incineration. On-site incineration was selected in the OU-2 ROD because off-site facilities were not available to incinerate the arsenic contaminated vault wastes in 1990.

EPA Contact

If you have any questions or would like to be added to EPA's mailing list for this site, please contact:

Lisa Brown (3HS43)
U.S. EPA, Region III, 841 Chestnut Building, Philadelphia, PA 19107,
(800) 553-2509
(215) 566-5528

Public Participation

The proposal to change the way vault soils are addressed is available for public review. A copy of the proposal is available in the public information files kept at the following locations. These public files are also called the Administrative Record File; copies of the RODs for Operable Units 1, 2, and 3 are also in these files. So are all documents that EPA used in making its cleanup decisions. The Administrative Record can be found at these locations:

Myerstown Community Library
199 North College Street
Myerstown, PA 17067
(717) 866-2800
Hours: Monday, Wednesday & Thursday:
12:00 p.m. to 8:00 p.m.
Tuesday & Friday: 12:00 p.m. to 6:00 p.m.
Saturday: 9:30 a.m. to 12:00 p.m.

U.S. Environmental Protection Agency, Region III
Administrative Record Room, 9th Floor
841 Chestnut Building
Philadelphia, PA 19107
Please contact Anna Butch for an appointment at:
(215) 566-3157
Monday - Friday - 8:30 a.m. to 4:30 p.m.

A public meeting to discuss the proposed Amendment will be held on February 10, 1998, at 7:30 p.m. in the Conference Room at the Jackson Township Municipal Building. A stenographer will be at the meeting so that you can make your comments orally, if you'd prefer. A public notice announcing the start of the comment period was published in the Lebanon Daily News. The 30-day public comment period runs from February 3, 1998 to March 4, 1998. Comments should be sent to:

Christopher J. Corbett (3HS22), U.S. EPA, Region III
841 Chestnut Building,
Philadelphia, PA 19107

United States Environmental Protection Agency
Region III (Lisa Brown - 3HS43)
841 Chestnut Building
Philadelphia, PA 19107

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